Gulf Cooperation Council

EDICT OF GOVERNMENT

In order to promote public education and public safety, equal justice for all, a better informed citizenry, the rule of law, world trade and world peace, this legal document is hereby made available on a noncommercial basis, as it is the right of all humans to know and speak the laws that govern them.

GSO 2137 (2010) (English): Dried Dill (Draft Standard)

BLANK PAGE

هيئة التقييس لدول مجلس التعاون لدول الخليج العربية
GCC STANDARDIZATION ORGANIZATION (GSO)

Final draft standard

GSO 05/ :2010

DRIED DILL

(تم تعديل البند 3.4 بناء على ملاحظات دولة قطر و مراجعة مختبرات الصحة بدولة الكويت بهذا الشأن، و بذلك تم إلغاء البندين 1.3.4 و 3.3.4 و تعديل البند 2.3.4 ليصبح 1.3.4)

(تم تعديل نسب المعادن الثقيلة طبقا للمرجع BS : 7087 – 29/1997، و تعديل نسبة الكاديوم و الرصاص بناء على GSO/CAC 193)

(هذه الملاحظات للتوضيح فقط و سيتم إلغائها من صفحة العنوان في النسخة النهائية)

Prepared by:
Gulf technical committee for sector standard of food and agricultural products

Foreword

Standardization Organization for (GCC) is a regional Organization which consists of National Standard Bodies of GCC member States.

One of GCC main function is to issue Gulf Standards through specialized technical committees (TCs).

GSO through the technical program of committee TC No. (5) 'Technical Gulf committee for food and agricultural products standards' has prepared the standard of **"DRIED DILL"** The draft standard has been prepared by the state of Kuwait, after review the Arabic, foreigner and International standards and related complied references.

This standard has been approved as Gulf technical regulation by GSO Board of Directors in its meeting No…./ …… held on ……/……H, / / G.

DRIED DILL

1- Scope

This Gulf Standard Specification specifies requirements for dried whole dill seeds derived from the annual plants *anethum graveolens* L, *anethum sowa* kurz, and its sub-species/ varieties thereof, processed for food use.

Also, it specifies requirement for dried ground dill and dried dill leaves.

2- Complementary References

2.1 GSO 9 "Labeling of prepackaged food stuffs"

2.2 GSO 123 "General requirement for fresh fruits and vegetables"

2.3 GSO 168 "Requirements of storage facilities for dry and canned food stuff"

2.4 GSO 287 "Microbiology – general guidance on methods for the detecmon of salmonella"

2.5 GSO 302 "Microbiology – general guidance for enumeration of presumptive eschrichia coli – most probable number technique"

2.6 GSO 409 "Microbiology – general guidance for the enumeration of micro-organisms-colony count technique at 30^{o}C"

2.7 GSO 710 "Microbiology – general guidance for enumeration of clostridium perfringens colony count technique"

2.8 GSO 842 "Microbiology – general guidance for enumeration of yeasts and moulds – colony count technique at 25^{o}C"

2.9 GSO ISO 6888 "Microbiology of food and animal feeding stuffs – Horizantal method for the enumeration of coaglase – positive staphylococcus aureus and other species) – part 1

2.10 GSO 841"Maximum limits of mycotoxins permitted in foods and animal feeds – Aflatoxins"

2.11 GSO 382, GSO 383 "Maximum Limits of Pesticide Residues Permitted in Agricultural and Food Products – Part 1, 2".

2.12 GSO 988 "Limits of Radioactivity Levels Permitted in Agricultural and Food Products".

2.13 GSO 1016 "Microbiological Criteria for Foodstuff – Part 1"

2.14 GSO 984" Maximum limits of mycotoxins permitted in food and animal feeds-aflatoxin"

2.15 GSO 2825 "Spices and condiment – preparation of ground sample for analysis"

2.16 GSO 928 "Spices and condiment – determination of total ash"

2.17 GSO 930 "Spices and condiment – determination of acid insoluble ash"

2.18 GSO 1208 "Spices and condiment – determination of filth"

2.19 GSO 6571" Spices, condiments and herbs -- Determination of volatile oil content"

2.20 GSO 927 "Spices and condiments -- Determination of extraneous matter and foreign matter content"

2.21 GSO 939 " Spices and condimant – Determination of moisture content –Entertainment method"

2.22 GSO/ CAC 193 " General standard for contaminants & toxins in food"

3- Definitions

3.1 Extraneous matter:

All matter other than dill seed, dill leaves or ground dill as appropriate, as described in A.1, A.2 and A.3.

3.2 Foreign matter:

Extraneous matter other than parts of the dill plant

3.3 Bulk material:

Dill intended for further processing and packaging and not intended for retail sale direct to the consumer.

3.4 Retail material

Dill packed in units intended for retail sale direct to the consumer.

4- Properties

4.1 Physical properties

4.1.1 Flavour

4.1.1.1 The dill in any format shall be free from mustiness rancidity or other foreign odours and tastes when examined by sensory analysis.

Note: Dill seeds have a pronounced warm fragrance and characteristic caraway like taste with hints of aniseed and liquorice plus a slight numbing effect on the tongue. The taste is more quickly apparent in ground dill but less strong in dill leaves.

4.1.2 Freedom from contamination

The dill shall be free from living insects, insect fragments, and mould growth when inspected visually.

NOTE: it should be free in practical terms from dead insects, insect fragments and rodent contamination visible to the naked eye.

4.1.3 Extraneous and Foreign Matter

4.1.3.1 Whole dill seeds

4.1.3.1.1 The content of extraneous and foreign matter in dill leaves shall not exceed 0.25% (m/m).

4.1.3.1.2 The content of extraneous matter (including stalks defined as >7 mm long and/or >2 mm wide) in whole dill shall not exceed 0.75% (m/m)

4.1.3.2 Dill leaves

4.1.3.2.1 The content of extraneous and foreign matter in dill leaves shall not exceed 0.5% (m/m)

4.1.3.3 Ground dill

4.1.3.3.1 Ground dill shall be free from visible extraneous and foreign matter

NOTE: Abnormal extraneous or foreign matter c ontent in ground dill may be indicated by a high acid – insoluble ash (clause 2.17).

4.2 Chemical composition

The chemical composition of whole dill seed, dill leaves and ground dill shall conform to the relevant requirements specified in table 1.

Table 1. Chemical composition of dried , whole dill seed , dill leaves and grond dill

parameter	Requirement		
	Whole dill seed	Dill leaves	Ground dill
Total ash % (m/m) , (dry basis) max	10.0	16.0	12.0
Acis insoluble ash % (m/m) ,(dry basis) max	1.5	3.0	2.0
Moisture % (m/m) max.	12.0	0.2	0.5
Volatile oil m1/100g (on dry basis) min.	1.25	0.2	0.5

4.3 The microbiological limits shall not exceed the limits stated in the gulf standard (GSO 1016) mentioned in clause 2.13, or as shown below:

4.3.1 For Direct use:

4.3.1.1 The total amount of aerobic plate count shall not exceed 10^5 per gram.

4.3.1.2 The total amount of yeast and moulds shall not exceed 10^3 per gram.

4.3.1.3 The total amount of enterobactor shall not exceed 10^3 per gram

4.3.1.4 The total amount of eacherichia coli shall not exceed 10^3 per gram

4.4 The Aflatoxins levels shall be in conformity with the gulf standard (GSO 841) mentioned in clause 2.10.

4.5 The heavy metals limits shall be in conformity with the gulf standard (GSO/CAC 193) mentioned in clause 2.22, and as the following table:

HEAVY METALS	MAXIMUM LIMITS (MG/KG)
Arsenic	0.1
Lead	0.3
Tin	200
Copper	20
Zinc	50
Cadmium	0.2

4.6 The radioactive contaminants shall be in conformity with the gulf standard (GSO 998) mentioned in clause 2.12.

4.7 The pesticide residues levels shall not exceed the permitted limit which is allowed in both gulf standards (GSO 382, 383) mentioned in clause 2.11.

5- Packing and labeling

5.1 Packing

5.1.1 To avoid condensation, a container that is permeable to air shall be used for the backing and storing of bulk material.

5.1.2 Hessian, Hessian sacks with a thin qauqe inner plastics sack or multi – ply paper sacks (sometimes plastics- lined) or moven plastics sacks are most commonly used.

5.1.3 Bulk material should be stored in a clean, dry, ventilated room, free from infestation and not exposed to direct sunlight.

5.1.4 For those packs that do not exceed 1 kg in net mass, problems of condensation are unlikely to arise , therefore, normal types of food packaging may be used (e.g. tubes made from plastics, paper or board , glass jars , lever lid tins and polyethylene bags in boxes) .

5.1.5 Dill weed fades during storage and should be protected from light.

5.2 Labeling

Without prejudice to the contents of the gulf standard specification GSO 9 "Labeling of prepackaged food stuffs" that mentioned in clause 2.1

5.2.1 Name of the product (e.g.: Whole dill seeds, dill leaves)

5.2.2 The producer or packer name, his address, and trade mark if any.

5.2.3 Country of origin and the importer name and address

5.2.4 The batch number

5.2.5 The net mass (in g or kg)

5.2.6 A statement regarding any special treatment, e.g. fumigation or irradiation;

5.2.7 The production and expiration date

5.2.8 The method of use

6- Sampling

6.1 Samples shall be taken according to the GSO standard stated in clauses (14.2, 14.5).

6.2 Samples prepares to chemical tests according to appendix **B.**

7. Method of Testing and Examination

7.1 Microbiological examination should be determined according to the GSO Standard mentioned in items (2.4,2.5,2.6,2.7,2.8,2.9,2.10,2.11,2.13).

7.2 Chemical tests should be carried out according to the GSO standard mentioned in item (2.16, 2.17, 2.18, 2.19, 2.20, and 2.21).

Reference

1- BS : 7087 – 29/1997
Herbs and spices ready for food use
Part : 29 specification for dried dell seed , dill leaves and ground dill

2- WHO: quality control method for medicinal plant materials " Geneva 1998 "

3- Es 7039/2009 : dried dill

Annex A

(Normative)

Description of dried cut, whole dill seed, dill leaves and ground dill

A.1 Whole dill seeds

The complete seed consists of a broadly oval schizocarp consisting of 2 mericarps attached to a divided carpophores.

In practicality, the seed splits on drying and the commercial product consists of seed as mericarps. These are approximately 2.5 mm to 5mm long, and 1.5 mm to 2.5 mm wide and roughly oval in shape.

In cross section the seeds have a flat or concave under-surface and pronouncedly convex upper surface, which is the seed. The convex seed surface has three pronounced longitudinal mid/light brown ridges upon them, the seed colour being brown/dark brown/ dark brown-green, dependent on origin, sub-species and crop conditions. The periphery of the mericarp is lighter colour as are the ridges.

Indian dill seed *Anethum sowa* (Kurz), a species native to northern India is characterized by seeds that are larger, flatter and tan-coloured with a yellow coloured frame around the edge.

A few seed stalks (pedicels) are invariably present. It is desirable that these be largely removed for premium material, as far as practicable

A.2 Dill leaves

These are often known as dill weed or dill tips.

The leaves are feather-like, finely divided and delicate and long and thin. They are approximately 5 mm to 15 mm long and 0.15 mm to 0.35 mm wide and roughly circular is cross section.

The colour varies between dark green to bright mid-green to yellow green dependent on sub-species, origin and drying.

The leaves are broken in the drying and rubbing process and dill leaves are generally sold in the form of broken leaves typically 2 mm to 7 mm long.

Freeze-dried dill leaves are a common alternative to the air-dried material. The latter have improved colour (mid-bright green) and a higher bulk index.

A.3 Ground dill

Ground dill is produced by grinding whole dill seed with no additions. The colour is dependent on origin, sub-species and crop conditions and varies from tan brown via green brown to mid/dark brown.

A.4 Countries of origin

The commonly traded origins of dill are variable dependent on the portions of the plant use.

For dill seed the commonly traded origins are India, China, Spain, Germany and the eastern European region. Dill seed imported from India is usually Anethum sowa whilst Anethum graveolens is imported from Egypt and California.

For dill leaves (dill weed)the commonly traded origins are france, USA, Germany, Egypt, Denmark and the Eastern European region.

Note: the whole plant is aromatic and oil extraction from the seeds/ leaves also occurs.

Annex B

(Normative)

Preparation of samples for chemical tests

Mix the laboratory sample thoroughly and take a test sample of sufficient quantity for each test.

Ensure that all the material in the test sample passes a 1.00 mm square aperture test sieve conrorming to BS 410: 1986, grinding the test sample as necessary in accordance with BS 4540:part 2 : 1982.

Annex C

(Informative)

Additional information

C.1 General

Further requirements may be specified in purchase contracts for all types of dill. They are generally relevant to the ultimate use of the product. Those commonly used are given in C.2 to C.3.

C.2 Bulk index

The bulk index (used to assess the amount of material to fill a retail pack) is expressed generally in millimeters per 100 g (carried out by a mutually agreed method).

C.3 Particle size (mesh)

Particle size is often quoted for ground dill. Particle size is expressed generally as the percentage by mass of material that passes through a specified test sieve conforming to BS 410.